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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/605,539	10/06/2003	Tzong-Liang Tsai	UECP0001USA	2538
27765	7590	11/01/2004	EXAMINER	
NAIPO (NORTH AMERICA INTERNATIONAL PATENT OFFICE)			MAI, ANH D	
P.O. BOX 506			ART UNIT	
MERRIFIELD, VA 22116			PAPER NUMBER	
			2814	

DATE MAILED: 11/01/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/605,539	Applicant(s) TSAI ET AL.	
	Examiner Anh D. Mai	Art Unit 2814	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 August 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 August 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>7/28/2004</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Status of the Claims

1. Amendment filed August 19, 2004 has been entered. All pending claims 1-20 remain as filed.

Specification

2. The change to the title of the invention is acknowledged.

Drawings

3. The drawings were received on August 19, 2004. These drawings are acceptable.

Information Disclosure Statement

4. The information disclosure statement filed July 28, 2004 fails to comply with the provisions of 37 CFR 1.97, 1.98 and MPEP § 609 because there is only one page (L-1431) of the document is received while the full document contains three pages (L1431-L1433). It has been placed in the application file, but the information referred to therein has not been considered as to the merits. Applicant is advised that the date of any re-submission of any item of information contained in this information disclosure statement or the submission of any missing element(s) will be the date of submission for purposes of determining compliance with the requirements based on the time of filing the statement, including all certification requirements for statements under 37 CFR 1.97(e). See MPEP § 609 ¶ C(1).

From the Previous Office Action

5. Claims 1-9 are rejected under 35 U.S.C. 102(e) for being anticipated by Wang (U.S. Patent No. 6,469,324) as previously applied.
6. Claims 11, 12, 14-17, 19 and 20 are rejected under 35 U.S.C. 102(e) for being anticipated by Yoo (U.S. Pub. No. 2003/0189212) as previously applied.
7. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wang '324 as applied to claim 1 and 4 above, and further in view of Estevez-Garcia (U.S. Patent No. 6,586,721) as previously applied.
8. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yoo '212 as applied to claim 11 above, and further in view of Rennie et al. (U.S. Patent No. 6,121,638) as previously applied.
9. Claims 18 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yoo '212 as applied to claims 11 and 15 above, and further in view of Wang '324 as previously applied.
10. Claim 22 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yoo '212 as applied to claim 11 above, and further in view of Applicant Admitted Prior Art (hereinafter APA) as previously applied.

Response to Arguments

11. With respect to the best mode, The amendment to the specification have overcome the best mode rejection. The rejection under 35 U.S.C. 112, first paragraph is therefore withdrawn.

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12. Applicant's arguments filed August 19, 2004 have been fully considered but they are not persuasive.

Rejection under 35 U.S.C. 102(e)

With respect to claims 1-9, applicants assert that the metal, silver, layer of Wang can not function as a reflective layer.

However, as clearly indicated in the instant disclosure, [0017], that silver is a reflective material.

Secondly, Wang clearly teaches: an LED includes a hybrid conductive transparent layer on the top surface and a conductive lower **reflecting layer**. The top transparent layer comprises a thin **conductor layer such as Ag** and a transparent conductive oxide layer such as SnO₂. (col. 3, lines 19-23). Further, with a thickness of 30-150 nm, Ag is clearly a reflective layer.

Additionally, applicants admitted that the device of Wang does have a **reflective layer** stacked on the substrate as disclosed in Fig. 10. (See the response page 10, lines 1-2).

Therefore, Wang explicitly teaches a reflective layer comprises Ag.

Applicants conclude: therefore, although the layer with reference sign 180 shown in Figs. 7 and 10 is composed of Ag, *it does not have the function of reflection*.

However, the Applicants fail to provide evidence to support his position.

In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., accordingly, the reflective layer used in one embodiment of the present application can be not light-

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transmissive) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

The Applicants also add: Moreover, although the components in the structure disclosed in claim 1 and the structures shown in Figs. 7 and 10 taught by Wang are compared one by one by the Examiner, the layer 180 and the layer 182 of Wang '324 must exist together, and such structure is not suitable in the present application. Furthermore, the components required in the present application are less than and different from the components required in Wang '324, known from the comparison.

However, the limitation of claim 1 do not exclude more components.

Since Wang teaches each and every limitation of claim 1, the rejection of claim 1 and the dependent claims thereof are maintained.

With respect to claims 11, 12, 14-17, 19 and 20, the Applicants assert that the layer 36 is a pad, not a p-type electrode, and the layer 34 is a p-type electrode, not a first reflective layer.

However, it is well known in the art that a metal layer formed on the p-side of an LED is a p-type electrode. Yoo also indicates that layers 36 and 40 are two electrodes (see [0014]).

With respect to layer 34, the suitable material for layer 34 include Au, Pt. These metals at least recognized by the inventor as a reflective material (see [0017]).

Since layer 34 of Au or Pt, formed under electrode 36 as shown in Fig. 1A, thus, the presently claimed device is clearly anticipated by Yoo.

The rejection of claims 11, 12, 14-17, 19 and 20 are therefore, maintained.

Rejection under 35 U.S.C. 103(a)

With respect to claims 10, 13, 18, 21 and 22 in response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

Note that, the reflective layers and the electrodes have been discussed above with respect to claims 1 and 11.

The rejection of claims 10, 13, 18, 21 and 22 for being obvious over the cited references are therefore, maintained.

Conclusion

13. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

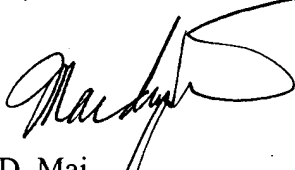
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however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anh D. Mai whose telephone number is (571) 272-1710. The examiner can normally be reached on 9:00AM-5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wael Fahmy can be reached on (571) 272-1705. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Anh D. Mai
October 27, 2004